



Climate change may halve Pacific Islands' coastal fish catches

Secretariat of the Pacific Community (SPC), Noumea, New Caledonia, Friday 4 March 2011 - Heads of Pacific Islands' fisheries agencies heard yesterday that climate change is predicted to cause big declines in coastal fisheries resources in the region, with potential production cut by as much as 50% by 2100. Higher sea temperatures, ocean acidification, and loss of important habitats like coral reefs, seagrass beds and mangroves are projected to have a drastic impact on the inshore resources that support many coastal communities, according to Dr Morgan Pratchett who spoke at the SPC Heads of Fisheries meeting on the vulnerability of coastal fisheries to climate change.

Impacts on mariculture – the farming of saltwater fish and shellfish – are also expected to be negative. Pearl culture – the most valuable aquaculture in the region – is expected to suffer as rising levels of carbon dioxide cause the ocean to become more acidic and make it harder for the pearl oysters to form their shells. Seaweed farming is also likely to be hit as higher water temperatures increase the risk of disease.

Some of the expected impacts are positive, however. Freshwater fisheries in countries near the equator could potentially become more productive as a result of increased rainfall. Freshwater aquaculture of fish like tilapia could also benefit from increased freshwater availability and higher temperatures.

For the region's largest fishery, tuna, the projected impacts of climate change are mixed. Models of the abundance and distribution of skipjack (the most plentiful tuna in the region) were presented by Dr Patrick Lehodey. These suggest some increase in production potential over the next 25 years, but a small reduction in the longer term. The best fishing grounds are also expected to shift generally eastwards, with countries in Polynesia the main winners. For bigeye, the most valuable of the four tunas in the region which is already subject to overfishing, the projections are less promising. Again the population is expected to shift to the east, but climate change is expected to cut production in all Pacific Island countries by 2100.

While there are always great uncertainties in forecasting the impacts of climate change on complex physical and biological systems, these results come from a thorough study of the vulnerability of Pacific Islands fisheries carried out by an international team of experts over the past three years. They represent the best and most up-to-date assessments available.

In looking at these long term impacts, the meeting was urged not to lose sight of the more immediate needs for improved management of fisheries and fisheries habitats. For coastal fish, protection of coral reefs, mangroves and seagrass from other causes of damage and avoiding overfishing provide the best chance of these systems being able to adapt to climate change. For freshwater fisheries, the potential positive impact of climate change will rely on good management of the watersheds; and, as WCPFC Executive Director Professor Glenn Hurry reminded the meeting – without effective management to maintain the region's tuna resources, fisheries will decline well before the time frame used in climate change predictions.

"We need to look for win-win solutions that give both short and longer term benefits" emphasized SPC fisheries and climate change adviser Dr Johann Bell. He pointed out that good management of coastal resources, improving access to tuna for coastal populations, and the development of freshwater aquaculture were steps that produce immediate

benefits in terms of food security for a growing population, as well as helping to adapt to climate change. Heads of Fisheries were also reminded that action to reduce greenhouse gas emissions at all levels is needed to mitigate climate change impacts.

For further information contact Johann Bell, JohannB@spc.int

ENDS